



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
100 CALIFORNIA STREET  
SAN FRANCISCO, CALIFORNIA 94111

JUL 18 1973

Governor John A. Burns  
Governor of Hawaii  
State Capitol  
Honolulu HI 96813

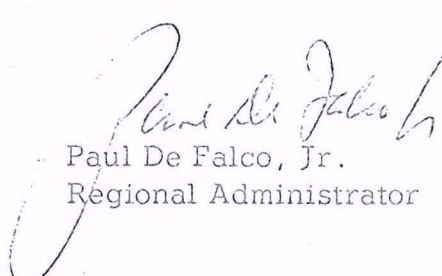
Dear Governor Burns:

My staff has reviewed the revisions submitted on May 25, 1973 to the Continuing Planning Process for the State of Hawaii and has determined that with these revisions the Process conforms with the requirements of Section 303 (e) of the Federal Water Pollution Control Act Amendments of 1972 and the regulations promulgated by EPA pursuant to that Section. I am pleased therefore, to notify you that I hereby unconditionally approve the Process.

I want to thank you for your cooperation in responding to the comments by the regional office on the Process as it was submitted on March 1, 1973. We are presently working with the staff of the Department of Health to refine the draft of the Annual State Strategy and Program Plan for fiscal year 1974.

Again, thank you for your cooperation.

Sincerely,

  
Paul De Falco, Jr.  
Regional Administrator

OFFICE OF THE GOVERNOR

JUL 20 AM 10:04

RECEIVED

May 25, 1973

Mr. Paul DeFalco, Jr.  
Regional Administrator  
Environmental Protection Agency  
Region IX  
100 California Street  
San Francisco, California 94111

Dear Mr. DeFalco:

Enclosed are the revisions to the State of Hawaii's Section 303(c) Continuing Planning Process as requested in your letter of April 20, 1973. We are also attaching copies of our letter to each of the Counties and their responses. They have all accepted responsibility as local planning agencies to develop Waste Treatment Management Plans and to comply with the schedules for completion that we have proposed.

Thank you for your compliments on the quality of our initial submission and for your conditional approval. Upon your review of the additions and modifications provided in this submittal, we look forward to receiving full approval of the Process.

Sincerely yours,

*Walter D. Quisenberry, M.D.*

WALTER D. QUISENDERRY, M.D.  
Director of Health

Enclosures  
cc: OEQC  
EPA, Hawaii  
JP/auc

REVISIONS TO THE STATE OF HAWAII  
303(e) CONTINUING PLANNING PROCESS  
MAY, 1973

1. Section D.4. The first sentence should be replaced by the following two sentences:

"All navigable waters covered by each basin plan will be listed. The water quality standards, the existing water quality levels, and all standards violations for each body of water, segment or subarea in the basin will be indicated."

2. Section D.5. The first sentence should be replaced by the following new sentence:

"Waste sources and loads will be determined and listed for each segment with the waste sources ranked according to their significance in attaining the water quality standards in that segment."

3. Section D.10. Add sentence at end:

"The Plan will contain a list of monitoring studies initiated and completed (See Section H); the facilities in operation, and a schedule for the award of construction grants and EIS studies."

4. Section E. The second sentence in the second paragraph should be changed to read:

"It is the water pollution control agency designated by the Governor and has overall responsibility for 303(e) planning and the preparation of Water Quality Standards Implementation Plans under Section 302(a) and 303(b) of the Act."

5. Section F. The first paragraph should be replaced by the following:

"All basin plans will be completed for submittal by June 30, 1975. However, completion of basin plans will be somewhat dependent upon timely issuance of guidelines by EPA. The phasing of the completion of the basin plans is tied closely to the expected completion dates of intensive water quality surveys to be conducted in the water quality segments identified in Section C as well as waste treatment management plans. These waste treatment management plans are being developed by the Counties. Three of the Counties are developing their plans in portions; the City and County of Honolulu is nearing completion of its plan for the entire island of Oahu, and it is estimated that it will be completed, in compliance with the guidelines to be issued by EPA pursuant to Section 201, by December 31, 1973."

The schedule for completion of waste treatment management plans by the other Counties remains as presently stated.

The following section should be inserted between the above mentioned schedule and the final paragraph:

"Intensive water quality surveys will be conducted in water quality segments in accordance with the Statewide priority ranking of water segments. It is anticipated that all intensive surveys will be completed by June 30, 1975."



In view of the foregoing, the estimated schedule for completion of Basin plans is as follows:

Oahu:	Mamala Bay Sub-basin	December 1, 1973
	Pearl Harbor Sub-basin	June 30, 1974
	Kaneohe Sub-basin	April 1, 1974
	Basin	October 1, 1974
Hawaii:	Hilo Sub-basins	September 30, 1974
	Other Sub-basins	May 1, 1974
	Basin	December 1, 1974
Kauai:	Hanapepe-Eleele Sub-basin	December 30, 1974
	Other Sub-basins	June 1, 1974
	Basin	February 1, 1975
Maui:	Waihee-Paia Sub-basin	May 1, 1974
	Other Sub-basins	April 30, 1974
	Basin	September 1, 1974

6. Section M. Change first sentence of last paragraph to read:

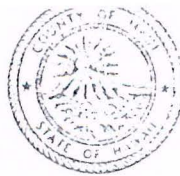
"Final reports will be submitted on June 30, 1973, as part of the annual program submittal, and will include a completion schedule for basin plans."



ELMER F. CRAVALHO  
Mayor

STANLEY S. GOSHI  
Director of Public Works

WAYNE S. UEMAE  
Deputy Director of Public Works



RECEIVED  
OFFICE OF THE DIRECTOR  
DEPT. OF HEALTH

DIVISIONS:  
Building  
Engineering  
Highway Construction  
and Maintenance  
Sewers

1973 APR 12 AM 9 46

COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS

200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

April 9, 1973

Dr. Walter B. Quisenberry  
Director of Health  
State of Hawaii  
Kinau Hale  
1250 Punchbowl Street  
Honolulu, HI 96813

Dear Dr. Quisenberry;

Subject: Federal Water Pollution Central Act Amendment  
of 1972

The Department of Public Works, County of Maui, accepts the designation as the local planning agency for the development of the Waste Treatment Management Plans. It is our understanding that the State Health Department will act as the coordinator for the State Basin planning function.

The tentative schedule for the sub-basin plans listed in your letter is acceptable pending the promulgation of the guidelines by the U. S. Environmental Protection Agency.

Very truly yours,

A handwritten signature in cursive script, reading "Stanley S. Goshi".

STANLEY S. GOSHI  
Director of Public Works

cc: Planning Department  
Federal Programs Coordinator

February 20, 1973

Mr. Stanley Goshi  
Director of Public Works  
County of Maui  
Wailuku, Maui, Hawaii 96793

Dear Mr. Goshi:

Subject: Federal Water Pollution Control Act  
Amendments of 1972

In accordance with Section 303(e) of the subject Act, the State is required to submit a Continuing Planning Process to the Administrator of the Environmental Protection Agency (EPA) by February 15, 1973. The Continuing Planning Process must include the designation of local planning agencies who will be responsible for developing any portion of the required State Basin Plans. Evidence of acceptance by the local agency of any designated planning responsibility and intent to comply with the time schedule for completion of the required plans is also required in the process.

The plans applicable to your agency are those specified in Sections 201 and 203 of "Title II, Grants for Construction of Treatment Works," of the new Act both of which are considered sub-plans of the State Basin Plans and are required in consideration of federal construction grants.

The waste treatment management plans specified in Section 201 are somewhat similar to the Water Quality Management plans which are currently being developed by your agency in accordance with the provisions of the old Federal Water Pollution Control Act. We have been advised by the EPA that the deadline of July 1, 1973 for the completion of Water Quality Management plans is no longer applicable under the new act. However, as previously mentioned, the waste treatment management plans of the new Act which are in essence the Water Quality Management Plans are required in order to be eligible for federal construction grants.

In light of the foregoing and in consideration of the status of completion of Water Quality Management Plans by your agency, we anticipate that the Waste Treatment Management Plans could be completed in accordance with the following schedule:

Waihee-Paia Sub-basin -----	September 31, 1973
Lahaina-Kaanapali-Napili Sub-basin -	July 1, 1973
Maalaea-Kihei-Makena Sub-basin ----	November 30, 1973
Lanai Sub-basin -----	November 30, 1973
Maul County Basin -----	May 31, 1974


Such a schedule for completion of plans can only be considered as tentative since the guidelines for the development of the Section 201 plans have not as yet been issued by the EPA.

The plans required under Section 203 are obvious and would be normally developed when a project is initiated.

We would appreciate your expeditious reply regarding your acceptance of the specified planning designation and tentative completion date of the required Section 201 plans.

Should you have any questions regarding this matter, please call us.

Very sincerely,

  
WALTER E. QUISENBERRY, M.D.  
Director of Health

DT/fk:auc

bcc: Chief, EHD (2)

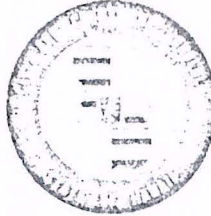


DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU

HONOLULU, HAWAII 96813

FRANK F. FASI  
MAYOR

Paul Devens  
MANAGING DIRECTOR



EDWARD Y. HIRATA  
DIRECTOR AND CHIEF ENGINEER

Kazu Hayashida  
DEPUTY DIRECTOR AND  
DEPUTY CHIEF ENGINEER

March 6, 1973

SP 73-82

Dr. Walter B. Quisenberry  
Director of Health  
Department of Health  
State of Hawaii  
P. O. Box 3378  
Honolulu, Hawaii 96801

Dear Dr. Quisenberry:

Subject: Federal Water Pollution Control Act Amendments of 1972  
Water Quality Management Plans

Reference: Department of Health Letter  
February 16, 1973

The Department of Public Works was designated the agency for developing the City's water quality management plan prior to the enactment of the Federal Water Pollution Control Act Amendments of 1972. We understand we are still the local agency who, together with your office, will be responsible for developing applicable portions of the State Basin Plans required by the amendments.

We agree that December 31, 1973 is a reasonable tentative completion date for the plans at this time since, as you say, (1) the requirements of our plans will be similar to the plans which our offices were developing before the enactment of the amendments and (2) the guidelines for the development of plans under the amendments have not yet been issued by the EPA.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Edward Y. Hirata", is written over a horizontal line.

EDWARD Y. HIRATA  
Director and Chief Engineer

February 16, 1973

Mr. Edward Y. Hirata  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
Honolulu, Hawaii 96813

Dear Mr. Hirata:

Subject: Federal Water Pollution Control  
Act Amendments of 1972

In accordance with Section 308(e) of the subject Act, the State is required to submit a Continuing Planning Process to the Administrator of the Environmental Protection Agency (EPA) by February 15, 1973. The Continuing Planning Process must include the designation of local planning agencies who will be responsible for developing any portion of the required State Basin Plans. Evidence of acceptance by the local agency of any designated planning responsibility and intent to comply with the time schedule for completion of the required plans is also required in the process.

The plans applicable to your agency are those specified in Sections 201 and 203 of "Title II, Grants for Construction of Treatment Works," of the new Act both of which are considered sub-plans of the State Basin Plans and are required in consideration of federal construction grants.

The waste treatment management plans specified in Section 201 are somewhat similar to the Water Quality Management plans which are currently being developed by your agency in accordance with the provisions of the old Federal Water Pollution Control Act. We have been advised by the EPA that the deadline of July 1, 1973 for the completion of Water Quality Management plans is no longer applicable under the new Act. However, as previously mentioned, the waste treatment management plans of the new Act which are in essence the Water Quality Management Plans are required in order to be eligible for federal construction grants.

In light of the foregoing and in consideration of the status of completion of Water Quality Management Plans by your agency, we anticipate that the Waste Treatment Management Plans could be completed by December 31, 1973.

Such a completion date can only be considered as tentative since the guidelines for the development of the Section 201 plans have not as yet been issued by the EPA.

The plans required under Section 203 are obvious and would be normally developed when a project is initiated.

We would appreciate your expeditious reply regarding your acceptance of the specified planning designation and tentative completion date of the required Section 201 plans.

Should you have any questions regarding this matter, please call us.

Very sincerely,



---

WALTER B. QUISENBERRY, M.D.  
Director of Health

DT/fk:auc

bcc: Chief, EHD (2)



SHUNICHI KIMURA  
MAYOR

RECEIVED  
OFFICE OF THE DIRECTOR  
DEPARTMENT OF HEALTH



BUREAUS AND DIVISIONS:  
AUTOMOTIVE EQUIPMENT & MOTOR POOL  
BUILDING CONSTRUCTION AND INSPECTION  
PLANS AND SURVEYS  
ROAD CONSTRUCTION AND MAINTENANCE  
SEWERS AND SANITATION  
TRAFFIC SAFETY AND CONTROL

EDWARD K. HARADA  
CHIEF ENGINEER

015 MAR 8 AM 8 51

COUNTY OF HAWAII  
DEPARTMENT OF PUBLIC WORKS  
25 AUPUNI STREET  
HILO, HAWAII 96720

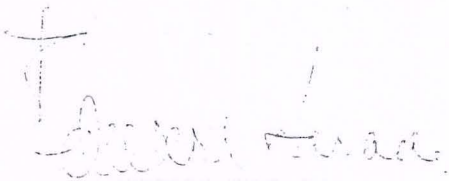
March 5, 1973

Dr. Walter B. Quisenberry, Director  
Department of Health  
P. O. Box 3378  
Honolulu, Hawaii 96801

SUBJECT: FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

In accordance with your letter dated February 16, 1973, the County of Hawaii will assume the responsibility of developing the Waste Treatment Management Plans for the County of Hawaii and will comply with the tentative schedule as outlined in your letter.

We also request that guidelines for the development of the Waste Treatment Management Plans be sent us and that the Department of Health assist the County by providing some of the information and data required.

  
EDWARD HARADA  
Chief Engineer

February 16, 1973

Mr. Edward Harada  
County Engineer  
County of Hawaii  
Hilo, Hawaii 96720

Dear Mr. Harada:

Subject: Federal Water Pollution Control Act  
Amendments of 1972

In accordance with Section 303(a) of the subject Act, the State is required to submit a Continuing Planning Process to the Administrator of the Environmental Protection Agency (EPA) by February 15, 1973. The Continuing Planning Process must include the designation of local planning agencies who will be responsible for developing any portion of the required State Basin Plans. Evidence of acceptance by the local agency of any designated planning responsibility and intent to comply with the time schedule for completion of the required plans is also required in the process.

The plans applicable to your agency are those specified in Sections 201 and 203 of "Title II, Grants for Construction of Treatment Works," of the new Act both of which are considered sub-plans of the State Basin Plans and are required in consideration of federal construction grants.

The waste treatment management plans specified in Section 201 are somewhat similar to the Water Quality Management plans which are currently being developed by your agency in accordance with the provisions of the old Federal Water Pollution Control Act. We have been advised by the EPA that the deadline of July 1, 1973 for the completion of Water Quality Management plans is no longer applicable under the new act. However, as previously mentioned, the waste treatment management plans of the new Act which are in essence the Water Quality Management Plans are required in order to be eligible for federal construction grants.

In light of the foregoing and in consideration of the status of completion of Water Quality Management Plans by your agency, we anticipate that the Waste Treatment Management Plans could be completed in accordance with the following schedule:

South Hilo Sub-basin - September 31, 1973  
North Kona Sub-basin - December 31, 1973  
Hawaii Basin ----- March 31, 1974

Such a schedule for completion of plans can only be considered as tentative since the guidelines for the development of the Section 201 plans have not as yet been issued by the EPA.

The plans required under Section 203 are obvious and would be normally developed when a project is initiated.

We would appreciate your expeditious reply regarding your acceptance of the specified planning designation and tentative completion date of the required Section 201 plans.

Should you have any questions regarding this matter, please call us.

Very sincerely,



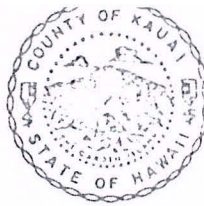
---

WALTER B. QUISENBERRY, M.D.  
Director of Health

BT/Sk:auc



Francis M.F. Ching  
MAYOR



RECEIVED

HERBERT H. MINAKAMI  
COUNTY ENGINEER

513 MAR 23 1973

COUNTY OF KAUAI  
DEPARTMENT OF PUBLIC WORKS  
P. O. BOX 111  
LIHUE, KAUAI, HAWAII 96766

March 23, 1973

Dr. Walter B. Quisenberry  
Director of Health  
State of Hawaii  
P. O. Box 3378  
Honolulu, Hawaii 96801

Re: Federal Water Pollution Control Act  
Amendments of 1972

Dear Dr. Quisenberry:

Reference is made to your letter February 16, 1973  
regarding subject amendments to the Federal Water Pollution  
Control Act.

The County of Kauai accepts the responsibility for the  
plans required under Sections 201 and 203 of "Title II,  
Grants for Construction of Treatment Works" of the new Act.

Insofar as the completion of the Waste Treatment Manage-  
ment Plans for the various sub-basins is concerned, the  
schedule set forth in your letter is reasonable and can  
be met, barring any unforeseen obstacles, by the County of  
Kauai.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Herbert H. Minakami", is written over a horizontal line.

HERBERT H. MINAKAMI  
County of Kauai

KM:h

February 16, 1973

Mr. Herbert H. Minakami  
County Engineer  
County of Kauai  
P. O. Box 111  
Lihue, Kauai, Hawaii 96766

Dear Mr. Minakami:

Subject: Federal Water Pollution Control Act  
Amendments of 1972

In accordance with Section 303(e) of the subject Act, the State is required to submit a Continuing Planning Process to the Administrator of the Environmental Protection Agency (EPA) by February 15, 1973. The Continuing Planning Process must include the designation of local planning agencies who will be responsible for developing any portion of the required State Basin Plans. Evidence of acceptance by the local agency of any designated planning responsibility and intent to comply with the time schedule for completion of the required plans is also required in the process.

The plans applicable to your agency are those specified in Sections 201 and 203 of "Title II, Grants for Construction of Treatment Works," of the new Act both of which are considered sub-plans of the State Basin Plans and are required in consideration of federal construction grants.

The waste treatment management plans specified in Section 201 are somewhat similar to the Water Quality Management plans which are currently being developed by your agency in accordance with the provisions of the old Federal Water Pollution Control Act. We have been advised by the EPA that the deadline of July 1, 1973 for the completion of Water Quality Management plans is no longer applicable under the new Act. However, as previously mentioned, the waste treatment management plans of the new Act which are in essence the Water Quality Management Plans are required in order to be eligible for federal construction grants.

In light of the foregoing and in consideration of the status of completion of Water Quality Management Plans by your agency, we anticipate that the Waste Treatment Management Plans could be completed in accordance with the following schedule:

Hanapepe-Eleele Sub-basin - July 1, 1973  
Waimea-Kekaha Sub-basin --- September 31, 1973  
Kapaa Sub-basin ----- December 31, 1973  
Kauai Basin ----- April 30, 1974

Such a schedule for completion of plans can only be considered as tentative since the guidelines for the development of the Section 201 plans have not as yet been issued by the EPA.

The plans required under Section 203 are obvious and would be normally developed when a project is initiated.

We would appreciate your expeditious reply regarding your acceptance of the specified planning designation and tentative completion date of the required Section 201 plans.

Should you have any questions regarding this matter, please call us.

Very sincerely,



WALTER B. GUISENBERRY, M.D.  
Director of Health

DT/fr:auc

cc: Chief, EHD (2)



CONTINUING PLANNING PROCESS

STATE OF HAWAII

February 15, 1973

## TABLE OF CONTENTS

	<u>Page No.</u>
A. Introduction . . . . .	1
B. Planning Areas and Maps. . . . .	2
C. Classification of Segments . . . . .	2
D. Planning Methodology and Contents of Plans . . . . .	3
E. Planning Agencies. . . . .	6
F. Schedule of Plan Preparation . . . . .	8
G. State Program Plan . . . . .	9
H. Monitoring and Surveillance. . . . .	9
I. Legal Authority. . . . .	9
J. Public Participation . . . . .	11
K. Certifications . . . . .	11
L. Plan Adoption and Revision . . . . .	11
M. Reports (See Attachments). . . . .	12
1. List of point and non-point dischargers by segments	
2. Letter from Governor	
3. Concurrent Resolutions (HCR 48 and SCR 14)	
4. Act 100 (Chapter 342 HRS)	
5. Proposed amendments to Chapter 342 HRS	
6. Chapter 37 DOH Regulations	
7. Chapter 37A DOH Regulations	

## A. INTRODUCTION

The continuing planning process described in this document has been prepared to meet the requirements of Section 303(c) of the 1972 F.W.P.C.A. amendments (PL 92-500), and to provide a workable program for the preparation of Water Quality Management plans for the navigable waters of the State of Hawaii.

The goals of the State program have been formulated to focus on high priority water quality problems within the State. The process has been designed to produce plans which insure that actions are coordinated toward this objective. To this end, monitoring efforts will be directed to the more complex water problems, effluent limitation and schedules of compliance will be established that are adequate to assure needed improvements, and funds for publicly owned wastewater treatment plants will be allocated to priority areas. Maximum allowable pollutant loads will be established for complex water problem areas, with individual discharge allocations developed to protect these maximum loads. A procedure will be established to insure that progress is measured and assessed, and that necessary corrective actions are taken. Finally, the process will insure that there is public participation in the establishment of the plans.

The planning process has been designed to meet these goals as basin plans are developed. The sections following contain:

1. A delineation of the planning areas and identification of the intrastate planning agencies;
2. The tentative classification of State waters into water quality limited and effluent guidelines limited classes;
3. Identification of the State's planning methodology and contents of plans;
4. A schedule for the phased development of plans;
5. A description of the State's program plan strategy;
6. A description of the State's monitoring efforts;
7. A description of the State's legal authority;
8. Provisions for public participation in the development of plans;
9. Provision for certifications and the adoption and revision of plans;
10. A list of point and non-point discharges by segments;
11. Maps of basins and segments.

With regard to the delineation of segments, we are somewhat troubled at the requirement that all segments be divided into water quality segments and effluent limitation segments at this time regardless of the availability of water quality data. The delineations made in this process are done to the best of our ability to estimate present and future probable conditions of water quality both now and after the attainment of "best practicable treatment." It is entirely in the realm of possibility that a reclassification of the segments will be made as more complete data on existing water quality becomes available.

## B. BASIN PLANNING AREAS AND MAPS

The State of Hawaii has established four basin planning areas, identified as minor basins in the EPA General Point Source Discharge file. These four basins are as follows:



1. Hawaii County (Hawaii Island)
2. Honolulu County (Oahu Island)
3. Kauai County (Kauai, Niihau and small islands)
4. Maui County (Maui, Molokai, Lanai, Kahoolawe and small islands)

Maps are enclosed which delineate the boundaries of each basin and the boundaries of the segments within each basin.

### C. CLASSIFICATION OF SEGMENTS

Each basin has been divided into one or more segments. These segments have been tentatively classified into one or the other of two categories, water quality class or effluent limitation class, according to criteria set out at the end of this section. For each of the four basins, the segments are named and classified as follows:

#### 1. Hawaii County

##### Water quality segment

- a. Hilo Harbor - Pepeekeo Point to Leleiwi Point

##### Effluent limitation segment

- a. rest of island

#### 2. Honolulu County

##### Water quality segments

- a. Mamala Bay - Fort Armstrong to Ahua Point
- b. Pearl Harbor - Ahua Point to Keahi Point including East, Middle and West Lochs
- c. Kaneohe Bay - Kualoa Point to Pyramid Rock
- d. Kahana Bay - Makalii Point to Mahie Point
- e. Kaiaka Bay - Kaiaka Point to Pauiki Cemetery Point

##### Effluent limitation segments

- a. Kahuku - Kaiaka Point to Makalii Point
- b. Kaaawa - Mahie Point to Kualoa Point
- c. Waimanalo - Pyramid Rock to Fort Armstrong
- d. Waianae - Keahi Point to Pauiki Cemetery Point

#### 3. Kauai County

##### Water quality segments

- a. Kauai Island-Manapepe Bay - Puolo Point to Port Allen Breakwater
- b. Kauai Island-Hanalei Bay - North lip of Bay to Ahukini Landing

##### Effluent limitation segments

- a. Kauai Island-Lihue - Ahukini Landing to Port Allen Breakwater
- b. Kauai Island-Waimea-Hanalei - Puolo Point to North lip of Hanalei Bay
- c. Niihau Island

#### 4. Maui County

##### Water Quality Segments

- a. Maui Island-Kahului Bay - Nele Point to Hobron Point
- b. Maui Island-Lahaina - Mala Wharf to Lahaina Lighthouse

##### Effluent limitation segments

- a. Maui Island-Mapili - Mala Wharf to Nele Point
- b. Maui Island-Mana - Lahaina Lighthouse to Hobron Point
- c. Molokai Island
- d. Lanai Island
- e. Kahoolawe Island

The segment classification system outlined in the rules and regulations has been developed around major river basins and is not specifically applicable to Hawaii's four defined basins which consist of an island or groups of islands with no major river systems. Accordingly, boundary lines for segments have been designated by points along the coastline of each island. The bays, harbors, coastal and shore waters have been carefully examined to determine common hydrological characteristics and common natural physical, chemical, and biologic processes. Particular attention was paid to the commonality of these waters in their reaction to external stresses. Segment boundary points have been designated using these criteria.

The basis for the classification of all segments is the existing State Water Quality Standards. Water quality segments have been defined principally on the basis that existing water quality does not meet water quality standards, and either a reasonable degree of certainty that water quality will not meet applicable water quality standards or substantial uncertainty as to whether water quality standards will be met after the application of effluent limitations required by Sections 301(b) (1) (A) and 301(b) (1) (B) of the F.W.P.C.A. of 1972.

In most of the effluent limitation class segments, water quality is now meeting applicable water quality standards. In other areas, it is known to a substantial degree of certainty that water quality standards which are now exceeded will be met after the application of effluent limitations, allowing for economic and demographic growth over the next five years based on existing and projected planned developments for the areas and provided that adequate municipal wastewater treatment plants are built for the existing and planned developments. The subclasses of effluent limitation segments are currently being identified and will form the foundation upon which discharges within the effluent limitation segments will be ranked.

These segment classifications are tentative and based on inconclusive data. They will be reevaluated as more complete data are developed.

#### D. PLANNING METHODOLOGY AND CONTENTS OF PLANS

Each basin plan will be developed in accordance with the requirements of 40 CFR Parts 130 and 131 in the following manner:



1. A priority ranking of water segments for State action, including a priority ranking within each basin will be established. The tentative classification of segments based on current State designated use of waters and other stated criteria has been set forth in the previous section. Those segments considered most critical will be identified, and will receive priority in planning effort, timing of plan completion, issuance of permits, and construction of municipal waste treatment facilities.
2. Maps will be made that identify each water quality and effluent limitation segment, with the location of all point and non-point discharge and all monitoring stations by river mile, shore location and/or grid map coordinate as appropriate.
3. The current status and schedule for completion of each water quality subplan prepared or under preparation which involves all or any part of the basin, will be described including:
  - a. each areawide waste treatment management plan under Section 208 of the Act;
  - b. each plan for a proposed project for the construction of treatment works under Section 203 of the Act;
  - c. each Level B basin plan under Section 209 of the Act;
  - d. applicable portions of each water quality standards implementation plan under Sections 303(a) and (b) of the Act.

Areawide subplans which are incorporated into basin plans will be separately and clearly identified, and the State shall certify whether or not these have been adopted with consideration of alternative courses of action and/or environmental assessment of effects, and whether results of such considerations are included in the adopted subplan.

4. All navigable waters covered by the basin plan, including the water quality standards applicable to each body of water, segment or subarea in the basin will be listed. The list will identify those waters, segments or subareas where:
  - a. water quality is better than applicable water quality standards;
  - b. water quality does not meet applicable standards;
  - c. water quality is not expected to meet applicable water quality standards even after the application of effluent limitations required by Sections 301(b) (1) (A) and 301(b) (1) (B) of the Act.
5. Waste sources and loads will be determined and listed for each segment. The location and description of the waste discharge characteristics of each point source of pollutants and an assessment of its impact on water quality in the basin will be made in conformity with the system developed by EPA. The plan will include an inventory and ranking, in order of abatement priority, of each point source so identified. This will be used in developing a State Municipal Facilities Priority List. This list along with the assessments of municipal needs provided in (D(8)) below will be used to establish priorities for the funding of publicly owned waste treatment facilities.



The inventory and ranking will also be used to develop a State Discharge Control Priority List, and, where required, a State Industrial Permit Priority List. The estimated phasing of the development of plans outlined in (F) below is based on the priorities expected to be established by this process.

6. A schedule of compliance or target dates for each point source identified in (D(5)) above, where such source is not in compliance with established effluent limitations and is not anticipated to be in compliance by January 1, 1974 will be established. The plan will indicate the milestone dates when the source will be brought into compliance in its various parameters, and the legal mechanisms that will be used to insure compliance, along with the rationale for the selection of these mechanisms. These compliance schedules will be integrated into other planning efforts.
7. In effluent class segments, national effluent limit guidelines will be applied to determine the requisite waste load reductions. In water quality segments, additional measures will be taken as follows:
  - a. an estimate of total maximum daily loads of pollutants tolerable in each segment, at a level as stringent as necessary to implement applicable water quality standards, including allowances for seasonal variations and an adequate margin of safety for uncertainties.
  - b. an estimate of total daily thermal loads tolerable in each segment adequate to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife, with a margin of safety for uncertainties. Such estimates will be made in accordance with criteria set forth in Section 131.204 of Part 131 of the proposed EPA regulations.
  - c. pollutant discharge load allocations for each point and non-point source, and a thermal load allocation for each point and non-point source as required. Allowance will be made for anticipated economic and demographic growth over at least a five-year period. The methods used for prediction of such growth and the assumption and rationale for the methods will be set forth. Additional allowances will be made for uncertainties in data. Pollutant and thermal load allocations will be coordinated with the development of terms and conditions of permits.
  - d. effluent limitations applicable to each point source identified, sufficiently stringent to meet the load allocations established. These effluent limitations will be coordinated with the development of terms and conditions covering discharge permits. See (D(6)) above.
  - e. the identification and evaluation of non-point sources of pollutants and a program for control of these non-point sources. To the extent practicable, the program will contain a description of the problem, water affected, responsibility, strategies and priorities for abatement control, schedules of compliance and estimates of the costs of implementation of the program.
8. An assessment of needs and funding requirements for publicly owned waste treatment plants will be made. Assessment shall be based on the criteria outlined in Section 131.209 (40 CFR Part 131) including:
  - a. load reduction achieved by the identified need of the facility, and



- whether this reduction is required to attain and maintain applicable water quality standards and effluent limitations.
- b. population to be served including forecast of growth or decline of such population over the design life of the needed facility.
  - c. existing abatement or control status.
  - d. principal facility purpose.
  - e. cost-effectiveness of proposed treatment determined by methods to be established by the EPA.
9. Controls will be established over all residual wastes from any municipal, industrial or other water or waste water treatment processing within the basin.
  10. Each basin plan will provide a schedule for implementation of the plan. For all segments, task will be identified. Program milestones needed to meet water quality criteria for each segment will be set for each source, along with schedules for issuance of permits and compliance schedules for each discharger within the segment. A summary will be prepared to show when expected improvements in water quality will occur. Progress reports will be prepared at least semi-annually on accomplishments achieved under the planning process in accordance with the requirements of Section 106 of the Act. Plans for each basin will be developed at a level commensurate with the complexities of the planning areas within that basin and will contain information sufficient to make informed decisions. They will be revised from time to time as necessary to reflect revisions of the applicable water standards. Total maximum daily loads and any individual pollutant discharge allocations will be recalculated as necessary and new or supplemental effluent limitations and schedules of compliance will be developed as appropriate in order to implement these new or revised water quality standards.

#### E. PLANNING AGENCIES

The State of Hawaii has a two level system of government, the state and the four counties. There are no separate incorporated cities, special districts or regional councils. There are no common borders with other states so there are no interstate water planning compacts. Planning responsibilities are therefore either within the state itself or one of the four counties.

Within the state, the State Department of Health is charged with the statewide responsibility of preventing, controlling and abating water pollution by Chapter 342, HRS (Act 100 HSL 1972). It is the water pollution control agency designated by the Governor and presently responsible for preparation of Water Quality Standards Implementation Plans under Section 303(a) and 303(b) of the Act. The State Department of Land and Natural Resources is submitting a proposal to prepare a Level B plan for Hawaii under the Water Resources Planning Act, as required by Section 209. The Office of Environmental Quality Control functions as a coordinating agency for all activities relating to the environment in the State.

Each county is currently in the process of preparing a Basin Water Quality Management Plan in accordance with 18 CFR 601.32-601.33 of the old amended law. It is apparent that these plans are similar or applicable to the Waste Treatment Management Plans under Section 201 of the Act. In view of the

foregoing, each county has been requested to accept official responsibility for developing plans required under Sections 201 and 203 of the Act. Affirmative replies have not been received but are anticipated, and will be forwarded to EPA upon receipt.

At this time the overall responsibility for the development of basin plans as well as that for various portions of these plans has not been finally determined. The State Administration has indicated its intention to create a single Water Quality Planning Advisory Committee as the designated group to implement Sections 102, 208, 209 and possibly 203 of the Act (see attached letter). This has not yet been done. There are also concurrent resolutions before the House and Senate of the State Legislature that would create a Temporary Commission on Statewide Environmental Planning that would "provide policy guidance" and "assign responsibility to the appropriate agencies for implementing plans and policies." The designation of planning agencies responsible for all or any portion of the planning within each basin must therefore be tentative and subject to revision.

The following state agencies have planning responsibilities now as noted:

1. Walter B. Quisenberry, M.D., Director  
State Department of Health  
P. O. Box 3373, Honolulu, Hawaii 96801

Responsibilities: Setting and maintaining water quality standards; issuance of permits and compliance monitoring; water quality monitoring and data collection; operation of water pollution control program for the state including basic water quality management planning.

2. Sunao Kido, Chairman  
State Department of Land and Natural Resources  
Kekuanao'a Building, 465 South King Street, Honolulu, Hawaii 96813

Responsibilities: Water resource planning; state land use planning for Conservation Districts and all state-owned lands.

3. Shelley M. Mark, Director  
Department of Planning and Economic Development  
Kamamalu Building, 1010 Richards Street, Honolulu, Hawaii 96813

Responsibilities: State land use planning; preparation of economic and demographic data including projections.

4. Richard E. Marland, Interim Director  
Office of Environmental Quality Control  
550 Hialekaiwila Street, Honolulu, Hawaii 96813

Responsibilities: Coordination of environmental planning programs and projects.



The county departments and directors now preparing areawide wastewater treatment plans are as follows:

Mr. Herbert H. Minakami  
County Engineer  
County of Kauai  
P. O. Box 111  
Lihue, Kauai, Hawaii 96766

Mr. Edward Harada  
County Engineer  
County of Hawaii  
Hilo, Hawaii 96720

Mr. Edward Y. Hirata  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
Honolulu, Hawaii 96813

Mr. Stanley Goshi  
Director of Public Works  
County of Maui  
Wailuku, Maui, Hawaii 96793

F. SCHEDULE OF PLAN PREPARATION

All basin plans will be completed for submittal by June 30, 1974. However completion of Basin plans will be somewhat dependent upon all guidelines to be published by the EPA. Waste treatment management plans are being developed by the counties, and the phasing of the completion of the basin plans is tied closely to the expected completion dates for those plans. Three of the counties are developing their plans in portions; the City and County of Honolulu is nearing completion of its plan for the entire island of Oahu, and it is estimated that it will be completed, in compliance with the guidelines to be issued by EPA pursuant to Section 201, by December 31, 1973.

The schedule for completion of waste treatment management plans by the other counties is as follows:

Hawaii:	South Hilo Sub-basin-----	September 30, 1973
	North Hilo Sub-basin-----	December 31, 1973
	Hawaii Basin-----	March 31, 1974
Kauai:	Hanapepe-Eleele Sub-basin-----	July 1, 1973
	Waimea-Kekaha Sub-basin-----	September 30, 1973
	Kapaa Sub-basin-----	December 31, 1973
	Kauai Basin-----	April 30, 1974
Maui:	Iahaina-Kaanapali-Napili Sub-basin -	July 1, 1973
	Waihee-Paia Sub-basin-----	September 30, 1973
	Maalaea-Kihei-Makena Sub-basin-----	November 30, 1973
	Lanai Sub-basin-----	November 30, 1973
	Maui Basin -----	May 31, 1974

The Department of Land and Natural Resources expects to take three years to complete the Level B Regional Plan for Hawaii under the auspices of the Water Resource Planning Act and in conformance with the provisions of Section 209, commencing in April, 1973, and finishing in April, 1976. Their planning program provides for close coordination among all State and Federal agencies having an interest in water planning, and the development of the basin plans under Section 303 will be closely integrated with their efforts, as well as any planning programs under Section 203.

## G. STATE PROGRAM PLAN

Each year the State will develop a strategy for attainment of program goals which will be submitted as part of the Section 106 State Program. This strategy will be an integral part of the overall environmental program produced under the Consolidated Grant mechanism, with specific objectives and milestone dates for accomplishment. It will include an assessment of the water quality problems within the state and assignment of priorities for the issuance of permits, construction of wastewater treatment plants, enforcement actions, completion of all or portions of plans, and other program objectives as appropriate.

Priority formulas for the State Discharge Control Priority List, the State Municipal Facilities List, and the State Industrial Permits List will be submitted along with the lists themselves on June 30, 1973, as a part of the Program Plan Submittal.

## H. MONITORING AND SURVEILLANCE

Each basin plan will be based upon adequate monitoring and surveillance data, incorporating the results of previous monitoring surveys as applicable. Present monitoring programs are in the process of review and modification. The adopted program will be designed to assure collection of data necessary to establish and review water quality goals, including antidegradation; to determine maximum daily loads, load allocations and effluent limitations; to establish the relationship between water quality and individual dischargers; and to identify non-point sources of pollutants. Primary emphasis will be given to monitoring surveys of water quality segments. An assessment of the existing monitoring and surveillance program and the modifications needed therein to satisfy all monitoring and surveillance requirements of the new F.W.P.C.A. will be completed by June 30, 1973.

The programs will include systems to process, validate and provide pollutant discharge and water quality measurement data for use in the planning information system; a systematic quality assurance program for data collection activities; a system of analytical quality control; a system of laboratory accreditation; and a program for producing the required annual reports.

Water quality data from fixed stations and non point source dischargers will be provided to the EPA information system in a manner mutually agreed to by the State of Hawaii and the Regional Administration.

## I. LEGAL AUTHORITY

The State of Hawaii has legal authority under Chapter 342, Hawaii Revised Statutes, and Chapters 37, 37A Department of Health Regulations, to prepare, adopt, and implement plans pursuant to the planning process as outlined herein with the exceptions noted below. The necessary amendments to Chapter 342 have been introduced in the current legislative sessions. Concurrent resolutions, House Concurrent Resolution #48 and Senate Concurrent Resolution #14, to establish and assign responsibility to appropriate agencies for Statewide environmental planning are also before the legislature. Adoption of both the amendments and the resolutions are expected to take place before June 30, 1973. Copies of the existing law, Chapter 342, H.R.S. (Act 100, Session Laws of Hawaii, 1972) and Department of Health Regulations 37 and 37A along with copies of the proposed amendments to 342 and the concurrent resolutions are attached.



Legal authority to accomplish specific requirements of the F.W.P.C.A., of 1972 exists or will be obtained as follows:

1. Authority to establish by law, regulation, permit or other enforceable method effluent limitations and schedules of compliance at least as stringent as those required by Sections 301(b) (1), 301(b) (2), 306, and 307 of the Act, and at least as stringent as any requirements contained in any applicable water quality standard in effect under authority of Section 303 of the Act.

Section 342-32(1), HRS

Section 342-32(1), HRS (Proposed Amendment)

Section 342-6, HRS (Proposed Amendment)

2. Authority to establish planning areas, adopt plans, and incorporate all elements of any other applicable plans, including areawide waste management plans under Section 203 of the Act, Level B basin plans under Section 209 of the Act, waste treatment management planning under Section 201 of the Act, and water quality standards under Sections 303(a) and (b) of the Act.

Chapter 342, HRS

Senate and House Concurrent Resolutions

3. Authority to establish, review, and revise water quality standards, total maximum daily loads for pollutants and individual discharge load allocations.

Section 342-32(1), HRS

Section 342-32(1), HRS (Proposed Amendments)

4. Authority to review and revise the continuing planning process and plans prepared pursuant to the process.

Chapter 342, HRS

Senate and House Concurrent Resolutions

5. Authority to carry out intergovernmental cooperation.

Chapter 342, HRS

Section 342-32(8)

6. Authority to provide for adequate implementation of plans by establishing enforceable effluent limitations, schedules of compliance, and any other measures necessary for attainment and maintenance of applicable water quality standards and national goals and objectives, including revised or new water quality standards under Section 303(c) of the Act and including antidegradation.

Section 342-32(1), HRS

Section 342-32(1), HRS (Proposed Amendments)

Section 342-6 (Proposed Amendments)

Chapter 37 and 37A, Department of Health Regulations



7. Authority to establish controls over the disposition of all residual waste from any municipal, industrial, or other water or waste water treatment processing.

Chapter 342, HRS

8. Authority to assess municipal waste treatment needs for the State, prepare an inventory and ranking, in order of priority, of all dischargers of the State, and employ the ranking in order to determine (i) funding priorities for the construction of publicly owned treatment works, and (ii) if the State is participating in the National Pollutant Discharge Elimination System processing priorities for permits.

Chapter 342, HRS

9. Authority to maintain a monitoring and surveillance system to obtain information necessary to determine whether water quality standards are being attained and maintained and whether water pollution sources are in compliance with applicable laws, regulations, standards, and waste discharge limitations, including authority to require record keeping and reporting by, and to make inspections and conduct tests of, water pollution sources.

Section 342-32(10), and Section 342-32(11), (Proposed Amendments)  
Section 342-10, HRS

10. Authority to require owners or operators of significant point sources and significant industrial users of publicly owned treatment works to install, maintain, and use discharge and receiving water monitoring devices and to make periodic reports to the State on the nature, amounts, and effects of discharges from such sources and users; also authority for the State to make such data available to the public as reported and correlated with any applicable effluent limitations or water quality standards.

Section 342-32(10), HRS (Proposed Amendments)  
Section 342-5, HRS

J. PUBLIC PARTICIPATION

One or more public hearings, with a minimum of 30 days notice, will be conducted prior to the adoption or substantive revision of basin plans. Complete documentation of the results of these hearings including noticing, time, place, attendance, and results of such hearings will be submitted with the basin plans.

K. CERTIFICATIONS

Assurances and certifications that there has been compliance with all legal requirements will be provided, pursuant to Section 131.400 of the regulations.

L. PLAN ADOPTION AND REVISIONS

Upon completion of public hearings, and after such review and revision as appropriate, including further public hearings if substantial changes are made, each basin plan will be adopted by the State as an official document and

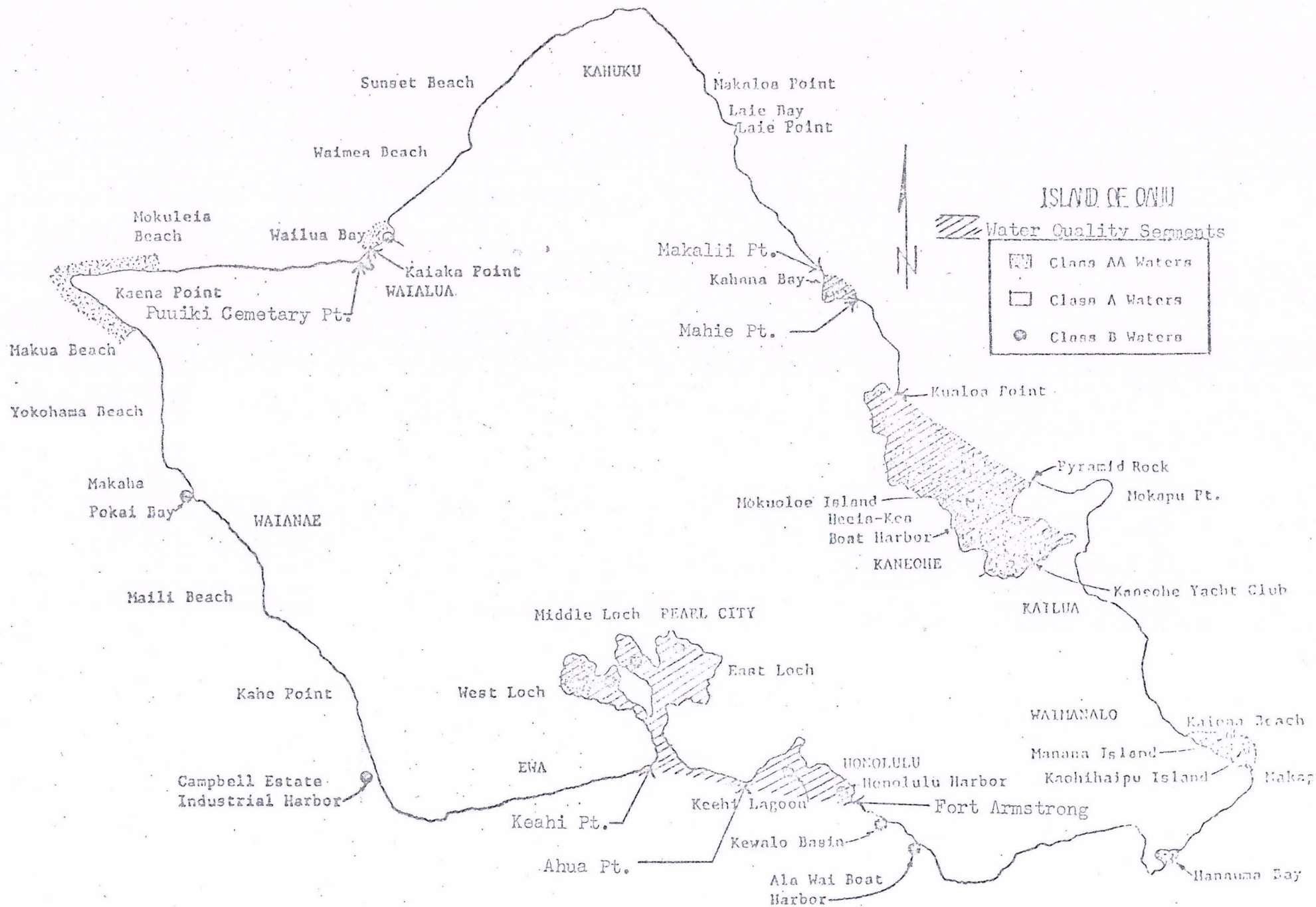
submitted to the Regional Administrator of EPA for approval. Each plan will contain a procedure for periodic review and revision, if required, to accomplish national water quality objectives.

M. REPORTS

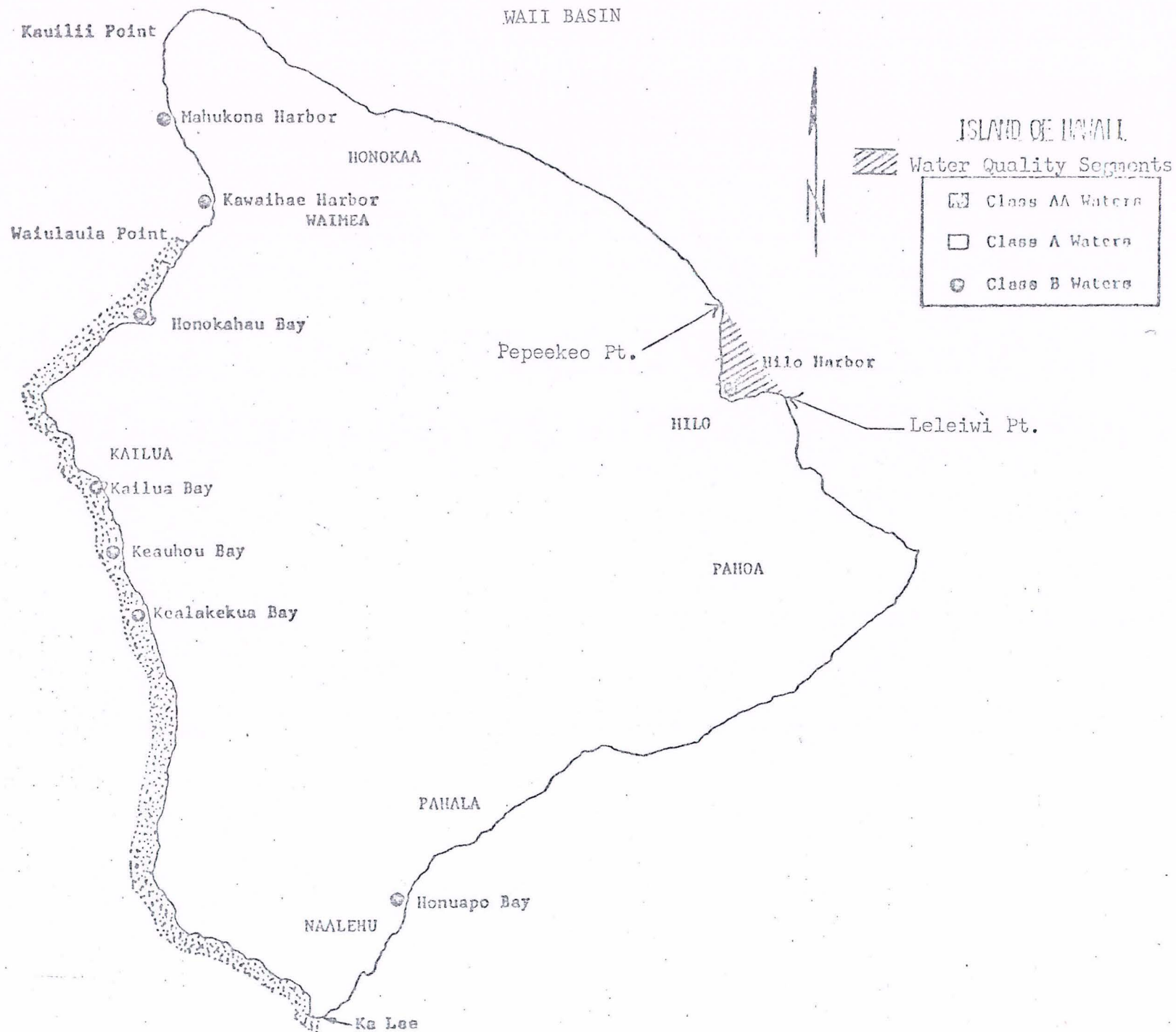
On April 15, 1973, the State will submit initial reports on:

- a. Pollution problems within the State.
- b. Anticipated construction grants and scheduling of municipal permits to be issued.
- c. Industrial permits to be issued.
- d. Status of revised monitoring program.
- e. Enforcement actions anticipated.
- f. Water Quality Standards revisions

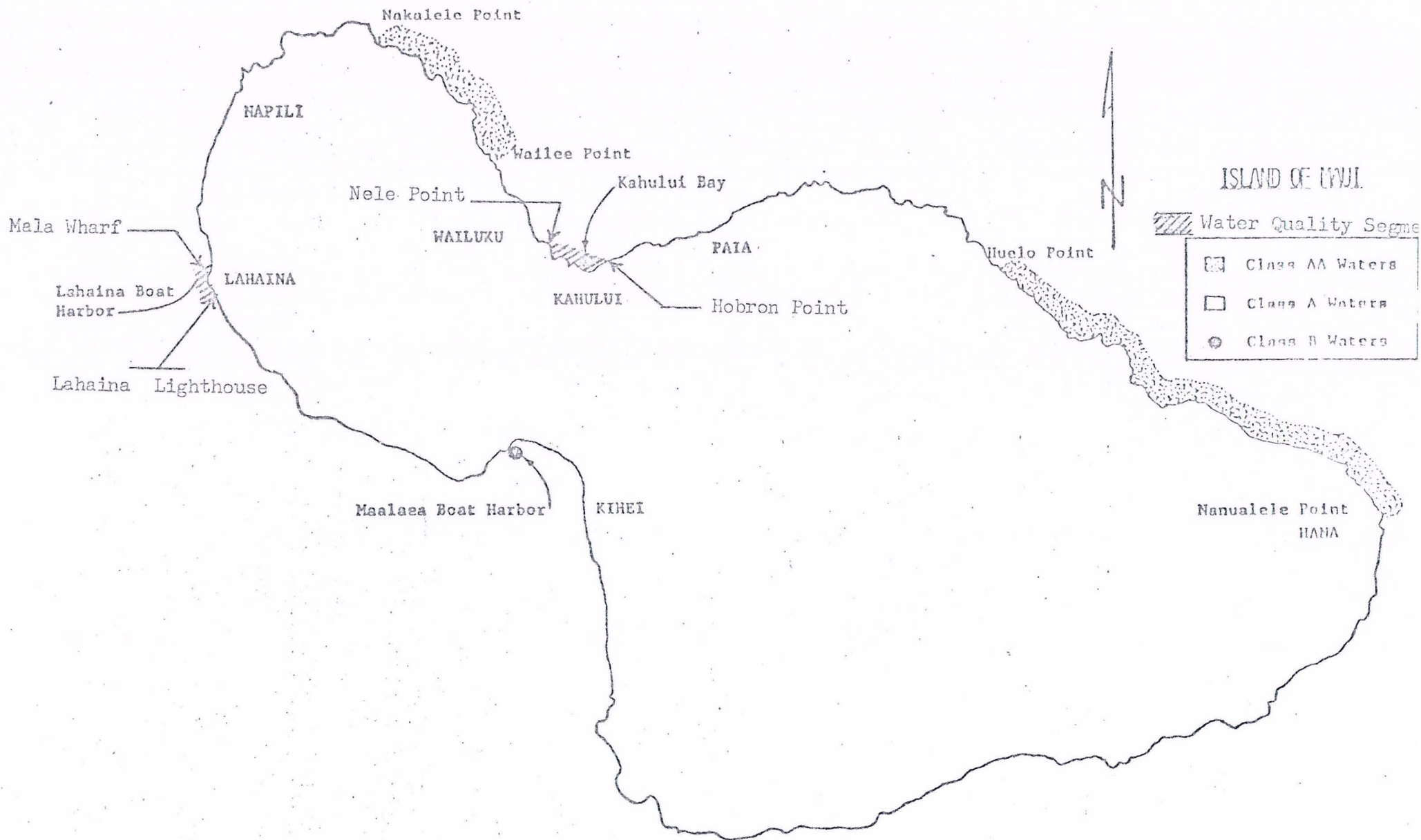
Final reports will be submitted on June 30, 1973, as part of the annual state program submittal. Additional reports will be submitted semiannually that will cover major milestones for achieving state program objectives; compliance schedules for commitments, construction and operation of pollution abatement facilities; the reductions planned and obtained; and the degree of improvement of ambient water quality.



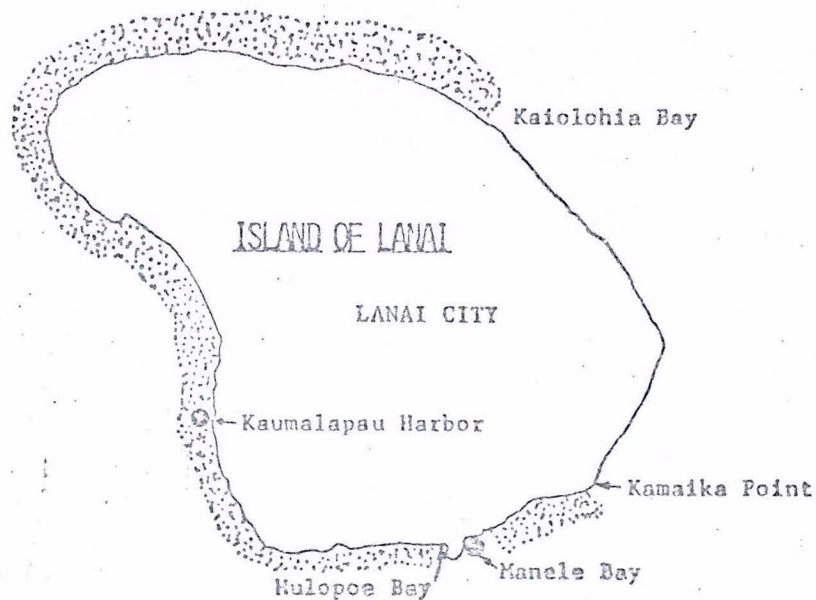
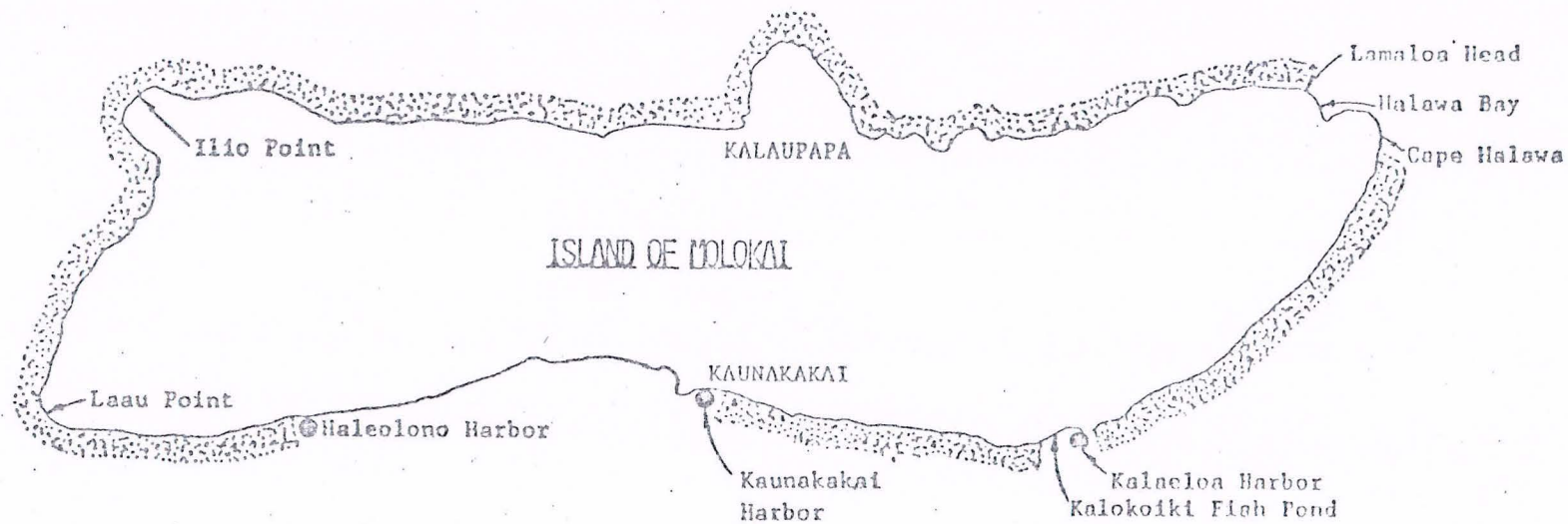







MAUI BASIN



MAUI BASIN

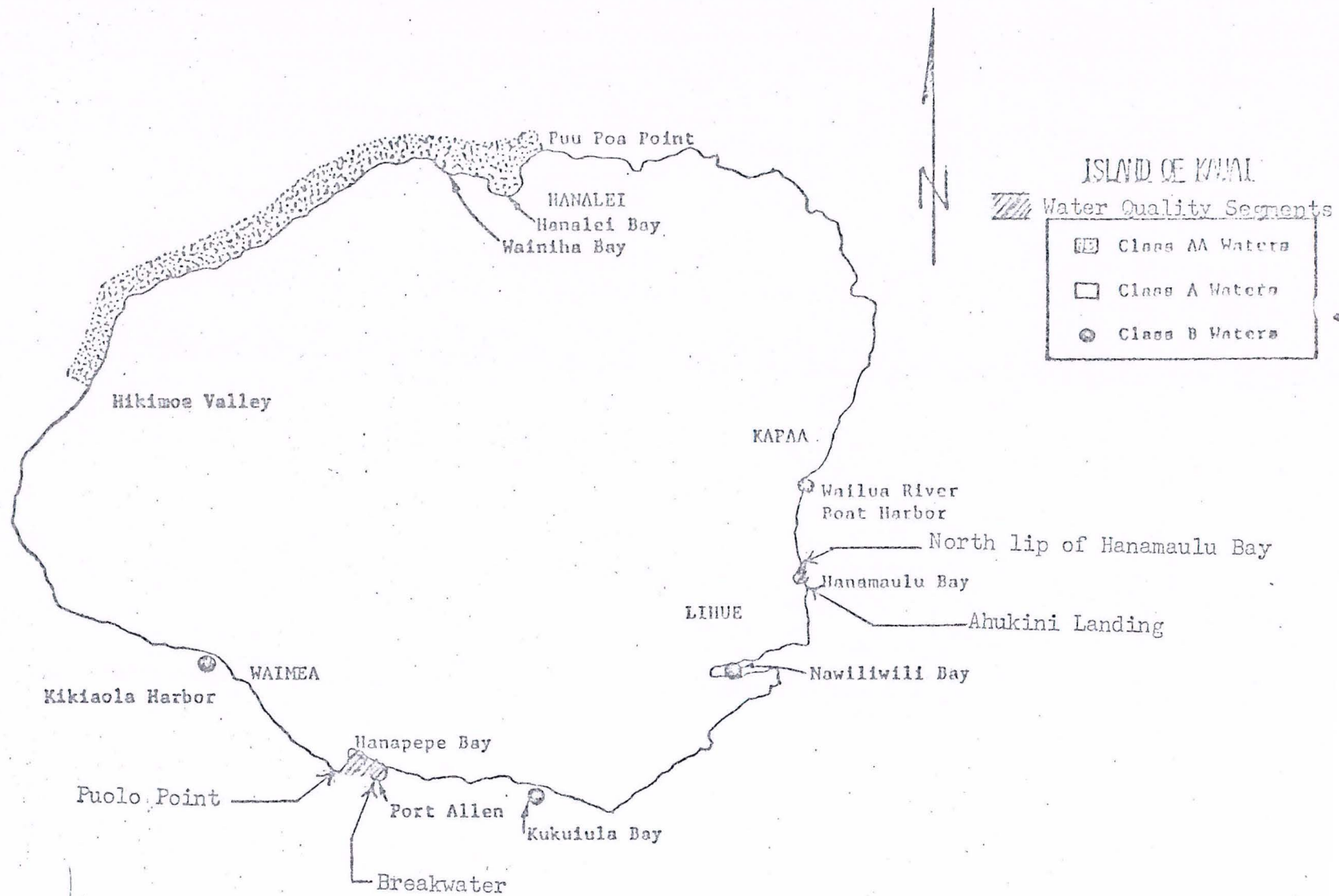


Water Quality Segments

-  Class AA Waters
-  Class A Waters
-  Class B Waters



# KAUAI BASIN



WATER QUALITY CLASS

<u>BASIN</u>	<u>ISLAND</u>	<u>SEGMENT</u>	<u>DISCHARGERS</u>
Honolulu County	Oahu	A. Mamala Bay	<ol style="list-style-type: none"> <li>1. Del Monte Corporation</li> <li>2. Honolulu Gas Company</li> <li>3. Dole Company Pineapple Cannery</li> <li>4. Young Brothers, Limited</li> <li>5. Hawaiian Electric Company, Honolulu Harbor Plant</li> <li>6. U.S. Army Ft. Shafter, Tripler Sewage Outfall</li> <li>7. Sand Island Outfall</li> <li>8. Sand Island (Coast Guard)</li> <li>9. Stream Runoff</li> </ol>
Honolulu County	Oahu	B. Pearl Harbor	<ol style="list-style-type: none"> <li>1. Pearl City STP</li> <li>2. Waipahu SPS</li> <li>3. Hawaiian Electric, Waiau</li> <li>4. Pacific Palisades STP</li> <li>5. Waimano Home STP</li> <li>6. Halawa County Jail STP</li> <li>7. Halawa Dog Kennel</li> <li>8. CMI Sugar Refinery</li> <li>9. Oahu Sugar</li> <li>10. U.S. Army Schofield STP</li> <li>11. Waipio Tract SPS</li> <li>12. Mililani STP</li> <li>13. Ford Island (Navy)</li> <li>14. Iroquois Point Housing (Navy)</li> <li>15. Pearl Harbor Plant #3 (Navy)</li> <li>16. Pearl Harbor Plant #2 (Navy)</li> <li>17. Pearl Harbor (TRL Services STP)</li> <li>18. Fleet Operation Center (Navy)</li> <li>19. Navy Ammunition (Navy)</li> <li>20. Wheeler Air Force Base (Air Force)</li> <li>21. Stream Runoff</li> </ol>
Honolulu County	Oahu	C. Kaneohe Bay	<ol style="list-style-type: none"> <li>1. Kaneohe STP, City &amp; County</li> <li>2. Kaneohe Marine Corps STP</li> <li>3. Ahulani STP, City &amp; County</li> <li>4. U of H Marine Biology</li> <li>5. Stream Runoff (grading, etc.)</li> <li>6. Marine Corp Air Station, Kaneohe (Navy)</li> </ol>
Honolulu County	Oahu	D. Kahana Bay	Stream Runoff (farming, grading, etc.)
Honolulu County	Oahu	E. Kaiaka Bay	<ol style="list-style-type: none"> <li>1. Wailua Sugar (thermal)</li> <li>2. Wahiawa STP</li> <li>3. Whitmore Village STP</li> <li>4. U.S. Army Helemano Radio Station</li> <li>5. Navy Radio-Wahiawa (Navy)</li> <li>6. Stream Runoff</li> </ol>

EFFLUENT LIMITATION CLASS

<u>BASIN</u>	<u>ISLAND</u>	<u>SEGMENT</u>	<u>DISCHARGERS</u>
onolulu County	Oahu	A. Kahuku	1. Waialae Livestock Farm
		B. Kaaawa	None
		C. Waimanalo	1. Pohakapu STP 2. Kukanono STP 3. Kailua STP 4. Maunawili Estate STP 5. Maunawili Park STP 6. Hawaii Kai STP
		D. Waianae	1. Waianae STP 2. Hawaiian Electric, Kahe 3. Standard Oil 4. Makakilo STP 5. Naval Air Station-Barbers Point (Navy) 6. Navy Ammo-Lualualei (Navy) 7. Navy Radio-Lualualei (Navy)



# INVENTORY OF POINT AND NON-POINT DISCHARGERS

## WATER QUALITY CLASS

<u>BASIN</u>	<u>ISLAND</u>	<u>SEGMENT</u>	<u>DISCHARGERS</u>
Hawaii County	Hawaii	A. Hilo Harbor	<ol style="list-style-type: none"> <li>1. Hilo Electric Co.</li> <li>2. County of Hawaii STP</li> <li>3. Stream Runoff</li> </ol>

## EFFLUENT LIMITATION CLASS

Hawaii County	Hawaii	A. Rest of Island	<ol style="list-style-type: none"> <li>1. Hamakua Mill Co.-sugar mill waste water</li> <li>2. Hamakua Mill Co.-sugar mill waste water</li> <li>3. Honokaa Sugar Co.-sugar mill washing plant waste water</li> <li>4. Honokaa Sugar Co.(Haina Cusp)-sugar mill washing waste water</li> <li>5. Honokaa Sugar Co.-raw sewage</li> <li>6. Kohala Sugar-sugar mill waste water</li> <li>7. Kohala Sugar-hydroelectric tailwater</li> <li>8. Kohala Sugar-irrigation tailwater</li> <li>9. Lupaohoe Sugar (Outfall #1)-sugar mill waste water</li> <li>10. Lupaohoe Sugar(Sewer Outfalls)-sewage</li> <li>11. Mauna Kea Sugar(Anderson)-sewage</li> <li>12. Mauna Kea Sugar(Moiron)-sewage</li> <li>13. Mauna Kea Sugar(Onomea)-sewage</li> <li>14. Mauna Kea Sugar(Papaikou Mill)-sugar mill wash plant waste water #1</li> <li>15. Mauna Kea Sugar(Papaikou Mill)-sugar mill wash plant waste water #2</li> <li>16. Mauna Kea Sugar(Papaikou Mill)-sugar mill boiler soot</li> <li>17. Mauna Kea Sugar(Papaikou Mill)-sediment from processing sugar juices</li> <li>18. Mauna Kea Sugar(Papaikou Mill)-ashes and bagasse from fireroom</li> <li>19. Mauna Kea Sugar(Paukai)-sewage</li> <li>20. Mauna Kea Sugar(Silverton)-sewage</li> <li>21. Mauna Kea Sugar(Wainaku)-fireroom ashes</li> <li>22. Mauna Kea Sugar(Wainaku)-mill boiler flue soot</li> <li>23. Mauna Kea Sugar(Wainaku)-mill washing plant waste water</li> <li>24. Paauhau Sugar Co.-boiling house waste water (closed)</li> <li>25. Paauhau Sugar Co.-raw sewage outfall (closed)</li> <li>26. Pepeekeo Sugar Co.(Hakalau Lower Village)-raw sewage</li> <li>27. Pepeekeo Sugar Co.(Hakalau Mill)-mill storage pit discharge</li> <li>28. Pepeekeo Sugar Co.(Hakalau)-mill sewage</li> </ol>
---------------	--------	-------------------	---